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Aerospace Medicine

**BLOODBORNE PATHOGEN EXPOSURE
CONTROL PLAN**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFPD 48-1, *Aerospace Medical Program, Occupational Safety and Health Administration* (OSHA), and is used in conjunction with 29 CFR 1910.1030, *Occupational Exposure to Bloodborne pathogens*, Morbidity and Mortality Weekly Report (MMWR), “*Guidelines for Prevention of Human Immunodeficiency Virus and Hepatitis B Virus to Health Care and Public Safety Workers*,” and AFOSH STD 48-21, *Hazard Communication*. It applies to all organizations at Elmendorf AFB and primarily involves personnel working in the 3rd Medical Group (3 MDG), 3rd Civil Engineer Squadron Fire Department (3 CES/CEF), 3rd Security Forces Squadron (3 SFS), and Office of Special Investigations (OSI). Additionally, employees required to provide first aid response as a part of their duties are included. However, all personnel working on Elmendorf AFB should understand how bloodborne pathogens (see attachment 1) are transmitted in case they must respond to an injured or ill coworker, dried blood found on an object, or a biohazardous spill. This publication does not apply to US Air Force Reserve or Air National Guard units or members.

1. Exposure Determination:

1.1. Exposure Categories. OSHA has established three exposure categories for protection against occupational exposure to infectious diseases, including Hepatitis B and C, and Human Immunodeficiency (HIV) viruses. These categories are as follows:

1.1.1. Category I (High Risk). Tasks that involve routine exposure to human blood, body fluids, or tissues. All procedures or other job-related tasks that involve an inherent potential for mucous membrane or skin contact with human blood, body fluids, or tissues, or a potential for spills or splashes of them are Category I tasks. Use of appropriate personnel protective equipment (PPE) is required for employees engaged in Category I tasks.

1.1.1.1. Category I includes medical employees in the following job classifications: physicians, dentists, nurses, physician’s assistants, laboratory officers, medical lab technicians, surgery technicians, dental and dental lab technicians, dental hygienists, dental assistants,

radiologists, radiology technicians, occupational therapists, physical therapists, optometrists, optometry technicians, immunization technicians, aeromedical technicians, medical technicians, and emergency medical technicians and paramedics.

1.1.2. Category II (Moderate Risk). Routine tasks that involve no exposure to human blood, body fluids, or tissues but employment may require performing unplanned or emergency Category I tasks. The normal work routine involves no exposure to blood, body fluids, or potentially infectious materials, but exposure or potential exposure may be required as a condition of employment. Appropriate PPE, as determined by the supervisor in consultation with Bioenvironmental Engineering, will be readily available to every employee engaged in Category II tasks.

1.1.2.1. Examples of Category II job classifications and tasks during which personnel may incur exposure include:

JOB	TASK
Utility Workers Firefighters	Plumbing, working on sewage systems First responders, emergency rescue procedures/rendering first aid
Security Forces	First responders, emergency rescue procedures/rendering first aid
Office of Special Investigations	Crime scene investigations
Hospital Employees not in Category I	Potential contact with infectious patients/equipment
Hospital Volunteers-Patient Care Areas	Potential contact with infectious patients/equipment
Hospital Housekeeping	Sorting laundry/trash
Designated First Aid Responders	First aid response in the workplace
Biomedical Equipment Repair	Repairing potentially contaminated medical equipment

1.1.3. Category III (No Anticipated Risk). Tasks that involve no exposure to human blood, body fluids, or tissues. The normal work routine involves no exposure to human blood, body fluids, or tissues (although situations may be imagined or hypothesized under which anyone, anywhere, might encounter potential exposure to body fluids). Persons performing these duties are not called upon as part of their employment to perform or assist in emergency medical care or first aid or to be potentially exposed in some other way. These workers may perform as “Good Samaritan.” Category III tasks and procedures may result in occupational exposure of almost any person in any job classification (for example, administrative workers, food handlers, routine laborers, and so forth).

2. Responsibilities Assigned:

2.1. The 3rd Wing Commander (3 WG/CC):

2.1.1. As the “employer,” implements the Elmendorf AFB Bloodborne Pathogen (BBP) Exposure Control Program described in this instruction.

2.1.2. Ensures all personnel at risk for occupational exposure to blood, body fluids, or other potentially infectious materials are adequately protected, receive training, and comply with established guidelines and requirements defined in this program and 29 CFR 1910.1030.

2.1.3. Ensures each unit (group and squadron) commander complies with the guidance referred to in the purpose statement, as well as the expanded policies set forth by this program.

2.2. Unit (group and squadron) commanders and supervisors will:

2.2.1. Appoint an office of primary responsibility (OPR) in each organization or unit to provide oversight for this program. The OPR will develop a unit-specific exposure control plan, monitor compliance with engineering and work practice controls, and ensure PPE and housekeeping requirements are met.

2.2.2. Refer all incoming Category I or II personnel to the Immunizations Clinic (3 MDOS/SGO-MAI) for Hepatitis B vaccine series, as applicable.

2.2.3. Make exposure control plan and its documentation available to workers who may have questions, and authorized program evaluators for required initial and annual review.

2.2.4. Provide training materials and document training workers on the medical aspects of exposure to blood, body fluids, other potentially infectious materials. Supplement general training with in-house unit-specific training on procedures and the storage and use of PPE.

2.2.4.1. Document training on the AF Form 55, *Employee Safety and Health Record*, or computerized training record as appropriate.

2.2.5. Purchase, properly store, ensure the use of PPE needed to protect Category I and II workers from exposure to blood, body fluids, and other potentially infectious materials. There must be enough PPE on hand to protect all workers involved in procedures with potential exposures. Additionally, PPE must be available in all sizes which appropriately fit all workers potentially exposed.

2.2.5.1. Clean, launder, and/or dispose of PPE at no cost to the employee.

2.2.5.2. Repair or replace PPE as needed to maintain its effectiveness, at no cost to the

employee.

2.3. The 3 MDG will:

2.3.1. Provide medical oversight for eligible workers exposed to blood, body fluids, or other potentially infectious materials in the course of their duties. Medical oversight for potentially exposed workers includes:

2.3.1.1. Immunizations to protect Category I and II workers against bloodborne pathogens, body fluids, and other potentially infectious materials.

2.3.1.2. Medical follow-up, treatment, and documentation for authorized personnel exposed to blood, body fluids, or other potentially infectious materials in the course of their duties.

2.3.1.3. Written risk assessment opinion for employees exposed to blood, body fluids, or other potentially infectious materials.

2.3.1.4. Initial training to supervisors on occupational exposure to blood, body fluids, or other potentially infectious materials.

2.3.1.5. Review and approval by public health (PH) of unit exposure control programs and educational programs developed for Category I and II workers.

2.3.2. Provide technical advice and supervisory assistance on:

2.3.2.1. The types of PPE needed to protect workers from exposure to blood, body fluids, or other potentially infectious materials.

2.3.2.2. Training of workers exposed to blood, body fluids, or other potentially infectious materials in the course of their duties.

2.3.2.3. Decontamination of surfaces contaminated with blood, body fluids, or other potentially infectious materials.

2.3.3. Assist with disposal of contaminated waste (when requested by organizations) through the medical waste disposal contract, and provide biohazard bags for gathering and transporting said waste.

2.4. Employees will:

2.4.1. Immediately report any occupational exposures to blood, body fluids, or other infectious materials to their supervisors.

2.4.2. Be familiar with and consistently employ “standard precautions” concept: treat all blood and other body fluids as infectious regardless of the source individual’s perceived health status.

2.4.3. Maintain and use PPE provided by the unit in all situations where occupational exposure to infectious materials may occur.

3. Procedures:

3.1. General:

3.1.1. All work areas with Category I or II personnel or tasks will develop and maintain a written unit-specific Exposure Control Plan. This plan will be reviewed and approved by PH initially and on an annual basis.

3.1.2. All active duty, civilian, and dependent Category I and II personnel will receive the Hepatitis B vaccine at no cost. The vaccine is mandatory for all active duty, civilian, and contract personnel who hold qualification or assignment in a medical or dental career field.

3.1.3. Personnel in Category III will be evaluated for post-exposure prophylaxis to Hepatitis B vaccine if an incident occurs which is related to their occupational tasks. These individuals can be assured that with this protocol that they are protected as immunized persons.

3.2. Training:

3.2.1. Category I and II workers will be given initial training prior to working in a work center with risk of exposure to blood, body fluids, or other potentially infectious materials, as well as annual training as required by 29 CFR 1910.1030. Supervisors may request assistance from PH to help meet both initial and annual training requirements. Supervisors will ensure training is documented on the employee's AF Form 55, or on computerized training record, as "Initial" or "Annual" bloodborne pathogen training.

3.2.2. All training for self-aid and buddy care as well as cardiopulmonary resuscitation (CPR) will include basic information concerning bloodborne and other potentially infectious pathogens, their transmission, and method of exposure control.

3.3. Exposure incidents.

3.3.1. If a worker is actually EXPOSED to blood, body fluids, or other potentially infectious materials in the course of their duties (for example, a needle puncture wound, getting cut with a contaminated object such as glass, having blood splash on the skin or mucous membranes of the eyes, nose or mouth, and so forth):

3.3.1.1. Ensure worker washes area thoroughly with soap and water. Do not use soap on eyes or in nose or mouth. If skin has been punctured, promote bleeding by squeezing area before washing.

3.3.1.2. Notify supervisor of incident; the supervisor will immediately send the worker and, if possible, the source individual to emergency services (3 MDOS/SGOEE), Building 5955.

3.3.1.3. Medical evaluation, treatment, and follow up of both employee and source will be the responsibility of emergency services (SGOEE), Building 5955.

3.3.2. The organization where the exposed incident occurred will:

3.3.2.1. Ensure areas, equipment, clothing, and materials contaminated with blood, body fluids, or other potentially infectious material are appropriately decontaminated. This may be done by properly trained unit employees or by certified contractors.

3.3.2.2. Decontaminate and dispose of any blood, body fluids, or other potentially infectious materials using appropriately trained personnel and the procedures outlined in attachment 2. A simple emergency spill kit (see attachment 3) can be easily assembled and stored in the workplace. If it's determined that use of bleach is not feasible due to its caustic nature (for example, on equipment panels), the unit should consult with the PH Flight for an alternate method of decontamination.

3.3.2.3. Place all contaminated articles which are disposed of in a biohazard bag. This task will be accomplished by appropriately trained organizational personnel wearing the proper

PPE, including: puncture-resistant waterproof gloves, a protective outer garment, and shoe coverings, if there is a potential for contaminating the worker's shoes.

3.3.2.4. If aerosolization or splattering of blood, body fluids, or other potentially infectious materials is expected, individuals must wear a mask and goggles or face shield.

3.3.2.5. The biohazard bags will be handled and transported appropriately to the 3rd Medical Support Squadron Facility Management (580-6134). If waste contains sharp items, such as broken glass, needles or knives, these must be placed in a puncture resistant container which is sealed prior to placing it in the biohazard bag.

NOTE:

A regular plastic garbage can be used instead of a biohazard bag if it's clearly marked with a bio-hazard label and double bagged. Contact 3rd Medical Support Squadron Facility Management (580-6134) if questions arise regarding disposal of contaminated wastes.

3.4. PPE:

3.4.1. PPE must be worn during procedures in which there is a potential for occupational exposure to blood, body fluids, or other potentially infectious materials. Employee noncompliance with the directives of this program must be immediately addressed through appropriate administrative procedures. This policy is established to protect the government's financial interest and to protect the worker's health.

3.5. Contracted Operations. Units planning to use contract services for blood, body fluids, or infectious waste spills must proactively establish a standing base contract that can be quickly initiated when required. Ideally, contract workers should be on-scene within an hour after notification. Do not wait until a BBP incident occurs to establish an adequate contract.

NOTE:

For contracted services, it is the contractor, not the Air Force, who assumes responsibility for compliance with OSHA standards and for the safety and health of their employees. Air Force contract specifications for services and materials must stipulate strict adherence to 29 CFR 1910.1030 and delineate PPE sources, immunizations, training, investigation, and documentation of bloodborne or other potentially infectious pathogen exposure incidents.

3.6. Record Keeping:

3.6.1. Training record must be appropriately maintained by all organizations with Category I and II workers for the duration of the worker's employment. Organizations are required to provide the employee, upon request, the employee's training records for examination and copying.

3.6.2. The Outpatient Records Section (3 MDOS/SGSTO) will:

3.6.2.1. Maintain a copy of all results of examinations, medical testing, and follow-up procedures pertaining to an occupational exposure (to include tuberculin skin testing).

3.6.2.2. Include the health care provider's written risk assessment opinion if exposure has occurred during employment.

3.6.2.3. Provide upon request from authorized authority (as required by law) the pertinent

portions of the employee's medical record for examination and copying.

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Commander

Attachment 1

TERMS EXPLAINED

Terms

Employee--An individual working in any capacity for the US Government at Elmendorf AFB (for example, military, civilians, civilian or military volunteers, housekeeping personnel).

Bloodborne Pathogens--Microorganisms in human blood which can cause disease.

Contaminated--The presence of blood or other potentially infectious materials on an item or surface.

Engineering Control--The use of available technology, device, or procedure to isolate or remove a bloodborne pathogen hazard from the work area (for example, splatter screens on laboratory work table).

Exposure Incident--A skin, mucous membrane, or parenteral contact with blood or other potentially infectious materials, resulting from the performance of the employee's duties.

Occupational Exposure--Reasonably anticipated skin, mucous membrane, or parenteral contact with blood or other potentially infectious materials, resulting from the performance of the employee's duties.

Parenteral--Piercing mucous membranes or the skin barrier through needle sticks, human bites, cuts, and abrasions.

Source--An individual whose blood or body fluids contaminate the wound, mucous membranes, or non-intact skin of another individual.

Standard Precautions--Combines universal precautions and body substance isolation to reduce the risk of transmission of organisms from both recognized and unrecognized sources of infection. The term "standard precaution" refers to an infectious disease control system intended to prevent healthcare workers from parenteral, mucous membrane, an non-intact skin exposures to bloodborne pathogens. Assume all blood and body fluids (for example, semen, vaginal fluids, cerebrospinal, lymph, pericardial, and so forth) are potentially infectious--regardless of the perceived status of the source individual--establish appropriate barriers between the patient's blood body fluids, or other infectious materials and the health-care worker.

Work Practice Controls--Procedures or practices that eliminate or minimize the likelihood of exposure incidents (for example, prohibiting needle recapping after use).

Attachment 2

DECONTAMINATION PROCEDURES

A2.1. The following procedures are recommended for “site specific” clean-up of spills involving blood or body fluids. Five percent household bleach is used here, but any disinfectant used must be first approved by the 3 MDG Infection Control Officer. Also, outline in your unit’s control program the procedures for clean-up using the disinfectant.

A2.1.1. Make a “spill kit” readily available for site clean-up. Place $\frac{3}{4}$ cup of household bleach in a dark brown or opaque bottle (sunlight will break down bleach.) Put the bleach, $\frac{3}{4}$ gallon of water (don’t mix the two until you clean-up a spill), pair of heavyweight, puncture resistant utility gloves, such as those used for house cleaning and dish washing, two household sponges, and paper towels or gauze in a plastic container or a box. Label the kit, attach a hazardous material sticker to the container and place in an area where a spill may occur or in the trunk of a security vehicle, and so forth. Also have the following available for large spills or spills that have the potential for splattering:

A2.1.1.1. Clothing. You must use cloth or disposable gowns or coats to prevent blood contamination of clean-up workers clothing. A disposable plastic apron that covers the torso and thighs is recommended if there is a significant probability that blood or body fluids may be splashed onto the clean-up workers. At the completion of clean-up, discard disposable clothing protection into a biohazard waste bag.

A2.1.1.2. Facial Protection. Wear facial protection if splattering of blood or body fluids is anticipated. A disposable mask offers protection; however, if there is substantial risk of splattering of blood or body fluids, wear a full-face shield or goggles. Ordinary glasses do not offer adequate protection against splattering. After the completion of clean-up, discard disposable facial protection waste bag.

A2.1.1.3. Shoes. If the spill is large and/or there is a potential of contaminating the worker’s shoes, wear waterproof shoe covers.

A2.1.1.4. Do Not Pick Up Contaminated Sharp Objects by Hand. If the spill contains broken glass or other sharp objects, these must be picked up without direct contact with hands. Use metal tongs, a broom and dust pan, or rigid sheets of cardboard used as “pusher” and “receiver” to pick up objects. Place sharp objects into a puncture-resistant container prior to placing into a biohazard waste bag.

A2.2. Absorb the Spill. Absorb the bulk of spilled material prior to disinfection with disposable absorbent material (paper towels, gauze pads, or if a small spill, sponge.) If the spill is large, granular absorbent material like that used to absorb caustic chemical spills may be used (for example, kitty litter.) Blot (do not wipe) up the spill allowing the fluids to be absorbed by the towels, and so forth. After absorption of the liquid, discard all materials into a biohazard waste bag.

A2.3. Mix the $\frac{3}{4}$ cup of bleach with the $\frac{3}{4}$ gallon of water. Flood the site or wipe down the spill site with disposable towels or sponge soaked in bleach to make the site “glistening wet.” Allow the bleach solution to remain in contact with the infectious material for 10 minutes.

A2.4. Absorb the disinfectant with paper towels and dispose of the paper towels in a biohazard waste bag. Alternatively, the spill site may be permitted to air dry.

A2.5. Rinse the spill site with water to remove a chemical residue. Dry the site to prevent slipping.

A2.6. Place all disposable materials used in the decontamination process into a biohazard waste bag. Dispose of the remaining disinfectant by pouring down the sanitary sewer.

A2.7. Decontaminate reusable materials and equipment following above procedures.

A2.8. If clothing becomes contaminated with blood or body fluids, it should be removed as soon as possible, the skin washed with soap and water, the clothing placed in a biohazard bag, and disposed of or cleaned by a laundry capable of handling blood contaminated clothing.

NOTE:

The above disinfecting solution is approximately a 1:10 dilution of household bleach. Larger or smaller amounts may be made following this dilution rate.

Attachment 3

EMERGENCY BLOOD OR BODY FLUID SPILL KIT CONTENTS LIST

A3.1. Suggested components.

A3.1.1. One tyvek type (impervious) coverall w/hood and boots.

A3.1.1.1. Three pairs disposable nitrile gloves.

A3.1.1.2. One faceshield w/Head Strap.

A3.1.1.3. One CPR microshield rescue breather.

A3.1.1.4. One disposable dust/mist respirator mask.

A3.1.1.5. Two biohazard bags.

A3.1.1.6. One sheet of biohazard labels.

A3.1.1.7. One small brown or opaque bottle containing $\frac{3}{4}$ -cup of household bleach. (Bottle must be tightly sealed and appropriately labeled.) Two household sponges.

A3.1.1.8. One zip closing bag containing paper towels or gauze.

A3.1.1.9. One pair of disposable (plastic) tongs or other rigid tool to use for picking up contaminated sharps. (Explanation of this tool is explained in greater detail in decontamination procedures protocol.)

A3.2. Kit should not be reused.

A3.3. Kit is nonsterile.

A3.4. Please dispose of contaminated, noncleanable material properly.

A3.5. Use biohazard labels on all containers used to transport biohazardous materials as well as bags containing contaminated waste.

NOTE:

Components of this kit which are not contaminated during its use, may be reused when building another kit.